

U.S.S.N. 10/791,607

Claim Amendments

Please amend claims 26, 28, 30, and 31 as follows:

Please add new claim 41 as follows:

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Listing of Claims

Claims 1-25 (canceled)

26. (currently amended) A phase change memory structure comprising:

a substrate comprising a conductive area;

a spacer comprising a phase changing material sensitive to temperature and having a partially exposed sidewall region at the spacer upper portion defining a ~~phase change memory element~~ contact area, said contact area comprising an upward sloping positive radius of curvature; and

an upper conductive electrode on said ~~phase change memory element~~ contact area;

wherein a spacer bottom portion partially overlaps the conductive area and said upper conductive electrode at least partially overlaps said ~~conductive~~ contact area.

27. (original) The phase change memory structure of claim 26,

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wherein the upper conductive electrode comprises a material selected from the group consisting of W, TiN, TiW, TiAl, TiAlN, and combinations thereof.

28. (currently amended) A phase change memory structure comprising:

a substrate comprising a conductive area;

a spacer having a partially exposed sidewall region at the spacer upper portion defining a ~~phase change memory element~~ contact area, said contact area comprising an upward sloping positive radius of curvature;

wherein the spacer comprises a material selected from the group consisting of a conductive material and a phase changing material sensitive to temperature; and,

wherein a spacer bottom portion at least partially overlaps the conductive area.

29. (original) The phase change memory structure of claim 28, wherein the conductive material comprises a material selected from the group consisting of W, TiN, TiW, TiAl, TiAlN, and

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combinations thereof.

30. (currently amended) The phase change memory structure of claim 28, ~~further comprising:~~

wherein said spacer comprises said conductive material;

a memory element comprising a phase changing material memory  
~~element~~ sensitive to temperature on the ~~electrode~~ contact area;  
and,

an upper conductive electrode on the ~~phase-changing~~ memory  
element.

31. (currently amended) The phase change memory structure of claim 30, wherein the phase changing ~~memory element~~ material comprises a chalcogenide.

32. (original) The phase change memory structure of claim 31, wherein the chalcogenide comprises a material selected from the group consisting of Ge, Te, and Sb and their alloy system.

33. (original) The phase change memory structure of claim 30, wherein the upper conductive electrode comprises a material

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selected from the group consisting of W, TiN, TiW, TiAl, TiAlN, and combinations thereof.

Claims 34-40 (canceled)

41. (new) The phase change memory structure of claim 28:

wherein said spacer comprises said phase changing material sensitive to temperature, said spacer comprising a memory element; and

an upper conductive electrode on said contact area;

wherein a spacer bottom portion partially overlaps the conductive area and an upper conductive electrode at least partially overlaps said contact area.